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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,876	06/13/2002	Andreas Hadler	DNAG 230	2623
24972	7590	03/22/2006	EXAMINER	
FULBRIGHT & JAWORSKI, LLP			ALIMENTI, SUSAN C	
666 FIFTH AVE			ART UNIT	PAPER NUMBER
NEW YORK, NY 10103-3198			3644	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/018,876	HADLER ET AL.	
	Examiner	Art Unit	
	Susan C. Alimenti	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11 January 2006.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 47-84 is/are pending in the application.
 4a) Of the above claim(s) 59-62, 72 and 81 is/are withdrawn from consideration.
 5) Claim(s) 84 is/are allowed.
 6) Claim(s) 47-58, 63-71, 73-80, 82 and 83 is/are rejected.
 7) Claim(s) 55 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 13 June 2002 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION***Drawings***

1. Applicant's arguments submitted on 11 January 2006, with regard to the objection to the drawings, are found persuasive, and the objection is hereby withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 47-58, 63-68, and 75-78 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 47, the phrase in lines 8-10, "wherein the shape . . . are harmonized with the fragmentation characteristics required for the projectile. . . nature of the quarry," is **indefinite and vague** since it is unclear what is defined by said phrase and what would sufficiently "harmonize" with "fragmentation characteristics."

Similarly, claim 58 recites, "a shape matched to required flight characteristics," however, this phrase is in indefinite since the required flight characteristics are relative to the application, and it is unclear how such a requirement would affect the structure of the projectile.

Claims 46-58 and 63-68 are also rejected as being dependant upon rejected base claim 46.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 47-54, 56-58, 63, and 64, are rejected under 35 U.S.C. 102(b) as being anticipated by Pejsa (US 4,776,279).

Regarding claims 47-51, 69, 70, 74, 75, 80, and 83, Pesja discloses the claimed projectile, as best understood, having a hard penetrating core 30 nested inside a centrally aligned, conical recess of soft core 12, and a jacket 14 completely surrounding both aforementioned cores.

Regarding claim 52, the cavity does not extend more than $\frac{3}{4}$ of the length of the soft core 12.

Regarding claim 53 the front, circular edge of soft core 12 that contacts jacket 14, lies perpendicular to the mid-line of the projectile.

Regarding claim 54 said recess matches the shape of the rear of hard core 30.

Regarding claim 56, Pesja notes the hard core 30 may be made of a plastic material (col.4, lns.40-48).

Regarding claim 57, Pesja shows a flat head tip in Figure 3.

Regarding claim 63, the tip of hard core 30 in Figures 1 and 2, is considered to be sharp.

Regarding claim 64, and 82 as best understood, crimps 22 are formed in the jacket

14. Regarding claims 77 and 78, a cavity 32 is narrower than the recess.

6. Claims 47-54, 57, 58, 63, and 65-66 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood (US 1,134,797).

Wood discloses the claimed invention as best understood, more specifically an expanding projectile comprising a jacket 3, a fragmenting soft core 2, and a hard penetrating core 4 disposed in front of said soft core 2 as seen in the direction of trajectory. The soft core 2 and penetrating core 4 are enclosed completely by said jacket 3.

The nose of the projectile is considered to be edge 5 of penetrating core 4, wherein said nose has a recess defined as the hollow conical interior, as best viewed in Figure 4, of penetrating core 4 and the tip angle is considered to be within the range of 30-90 degrees.

Regarding claim 52, a cavity, defined as the volume filled by rear tip 7 adjoins said recess and extends no more than 75% of the length of the soft core 2.

Regarding claims 53 and 55, edge 5 is a circular annular surface and is perpendicular to the midline of the projectile.

Regarding claim 57, Wood shows the nose 5 to be a flat head in Figures 3-4.

Regarding claim 58, the tip of the projectile is considered match required flight characteristic to generally conform to the shape of the rear of the projectile and vice versa.

Regarding claim 63, the tip of the projectile in Figure 1 is considered to have a sharp edge.

Regarding claims 65 and 66, the thickness of jacket wall 3, as seen in at least Figures 1 and 2, decreases in thickness from the rear toward the forward front edge.

7. Claims 69, 70, 74-79, and 83 are rejected under 35 U.S.C. 102(b) as being anticipated by Carter (US 5,621,186).

Carter discloses a projectile, as best viewed in Figure 5, comprising a soft core 10 made of lead, and a hard penetrating core defined as the plastic tip (col.3, lns.18-20) set in the nose of soft core 10. A jacket 14 surrounds majority of the projectile and contacts a rear portion of the plastic hard-core tip. The recess in the nose of the projectile is conical and aligned along a mid-line recess of the projectile.

Claims 69, 70, 74-79, and 83 are rejected under 35 U.S.C. 102(b) as being anticipated by

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 67 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pesja as applied to claim 47 above, and further in view of Stone (US 6,691,623).

Pesja discloses the claimed invention having a penetrator core made of a plastic tip except the soft core is made of lead. Stone teaches the use of an alternative soft projectile material that is lead-free, and thus will not contaminate the environment surrounding the intended target. Lead can be a very dangerous and poisonous material to the environment and those in contact with said substance. It would have been obvious to

one having ordinary skill in the art at the time the invention was made to use Stone's lead-free material in order prevent the possibility of contaminating the environment.

Regarding claim 68 the lead-free material is made from at least, iron and zinc (Stone, col.2, lns.54-57)

10. Claims 71, 73, 82 and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter in view of Rapp et al. (US 3,132,591).

Regarding claims 71 and 83, Carter discloses the claimed invention except he does not positively show the plastic penetrator tip to have a hollow tip. Carter, however, does teach the use of a hollow tipped projectile In Figure 2 that provides a particular desired impact effect. Further, Rapp teaches the use of insert 4 having hollow tip 6 providing a greater mushrooming effect upon impact. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the tip insert in Carter's projectile with a hollow tip in order to enhance the mushrooming effect upon impact.

Regarding claims 73 and 82, Carter does not positively show a crimping in the side of the jacket 14. Rapp teaches a crimping effect in jacket 1 at a transition point where the insert 4 is received in the rearward core 3. Such a crimping is well-known to supply a weak point to further facilitate a desired expansion effect for the jacket upon impact. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a crimp in Carter's hardened jacket 14 in order to ensure that the jacket follow a predetermined expansion effect upon impact with a target.

Allowable Subject Matter

11. Claim 55 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
12. Claim 84 is allowed.

Response to Arguments

13. Applicant's arguments filed 11 January 2006 have been fully considered but they are not persuasive.

First regarding the Pesja rejection, applicant claims that Pesja does not disclose the invention as claimed because the projectile is not a “partial fragmentation” projectile, as it does not break apart like applicant’s invention. The examiner respectfully disagrees and reminds applicant that the claim language is read with the broadest interpretation standard. Accordingly Pesja’s projectile is considered to satisfy the metes and bounds of the claims, first because it is clear from at least Figure 3 that the projectile casing at point 34 breaks apart. Further, it is known that in addition to mushrooming, expanding bullets tend to release splinters and fragments upon impact with the target.

Regarding the Wood rejection, Applicant contends a point similar to that argued with regard to Pesja and argues that Wood does not disclose a partial fragmentation projectile because the two cores do not separate from one another. The examiner disagrees and reminds applicant that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the

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prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Finally regarding the Carter rejection, Applicant argues that plastic tip, as seen in Figure 5, cannot be the hard core as claimed, however, he gives no reason to support this contention. The examiner respectfully disagrees and maintains that the plastic tip as disclosed by Carter, satisfies the structural limitations as claimed in the present invention.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan C. Alimenti whose telephone number is 571-272-6897. The examiner can normally be reached on Monday-Friday, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan C. Alimenti

*MICHAEL J. CARONE
SUPERVISORY PATENT EXAMINER*

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